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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/302,080	04/28/1999	CHARLES C. BRACKETT	15-UL-4901	6445

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EXAMINER

POKRZYWA, JOSEPH R

ART UNIT PAPER NUMBER

2622

DATE MAILED: 03/26/2004

18

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/302,080

Applicant(s)

BRACKETT ET AL.

Examiner

Joseph R. Pokrzywa

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/21/04 has been entered.

Response to Amendment

2. Applicant's amendment was received on 1/21/04, and has been entered and made of record. Currently, **claims 29-39** are pending.

Response to Arguments

3. Applicant's arguments, seen on pages 7-9, filed 1/21/04, with respect to the rejection of independent **claims 29 and 36** under 25 U.S.C. 102(e), as being anticipated by McDonald (U.S. Patent Number 5,920,317) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made under 35 U.S.C. 103(a), as being unpatentable over McDonald in view of Banks *et al.* (U.S. Patent Number 6,674,449). A full discussion of the references appears below.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 29-33, 35-37, and 39** are rejected under 35 U.S.C. 103(a) as being unpatentable over McDonald (U.S. Patent Number 5,920,317, cited in the Office action dated 8/19/03) in view of Banks *et al.* (U.S. Patent Number 6,674,449).

Regarding **claim 29**, McDonald teaches of a scanner (capture station 22, see Fig. 1) comprising an operator interface (seen in Fig. 5, as the image review module, column 9, line 61 through column 10, line 47), a display monitor (see Fig. 5, as the image review module, column 9, line 61 through column 10, line 47), a scanning subsystem for acquiring data representing an image of a target object (column 4, lines 1 through 35, whereby scanned ultrasound data is acquired in the image review module), a networking port for communicating with a network (see Fig. 1, being the connection to database server 24), and a computer programmed (column 3, line 66 through column 4, line 56, with the capture station 22 having an included programmed computer) to perform the steps of controlling the display monitor to display one or more screens having a plurality of fields that can be filled with respective worklist search parameters (being a patient search parameters) inputted using the operator interface (column 5, lines 1 through 20, wherein a patient search parameter is input in step 40, which is a hospital chart number or a patients surname, thereby being a plurality of fields), formulating a worklist search request message as a function of the contents of the plurality of fields in response to input of a search

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command using the operator interface (column 5, lines 12 through 17, being the search parameter message which is subsequently dispatched to the database server), opening an association with a remote worklist broker (database server 24) via the network (column 5, lines 10 through 27, see Fig. 1, being the communication between the capture station 22 and the review station 26), sending the worklist search request message to the remote worklist broker via the networking port while the association is open (column 5, lines 10 through 27, being the search parameter dispatched in a message to the database server), controlling the display monitor to display at least portions of the worklist search results received from the remote worklist broker in response to the sending step (column 5, lines 19 through 38, steps 42 and 44, being the display of patients that match the search parameter), registering portions of the worklist search results belonging to a particular patient in response to input of a patient selection command using the operator interface after the controlling the display monitor step (column 5, lines 23 through 38, steps 46, 48, 56, and 58, being the selection of a record, which is then retrieved from the database server 24, and the creation of a new admission record), controlling the scanning subsystem to acquire an image in response to input of a scan command using the operator interface after the registering step (see Fig. 5, column 5, line 58 through column 7, line 45, being a created annotation file, seen in Table I having scan data, which is created after the registering step, which was interpreted as the creation of a new admission record), and storing the acquired image in association with the registered portions of the worklist search results in response to input of a save command using the operator interface (column 2, lines 52 through 65, column 4, lines 47 through 56, column 5, lines 38 through 55, and column 14, lines 24 through 45, particularly lines

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27 through 32, wherein the scan data and the admission record data for each patient are stored together).

However, McDonald fails to specifically teach if the received worklist search results comprise a list of patients scheduled to be examined during a particular time period using the scanner. Banks discloses a scanner (see Fig. 1, abstract, column 7, line 45 through column 8, line 13) comprising an operator interface (column 6, line 65 through column 7, line 20), a display monitor (display screen 104, column 7, lines 4 through 20), a scanning subsystem for acquiring data representing an image of a target object (column 7, line 57 through column 8, line 13), a networking port (video cable 105, column 7, lines 14 through 20), and a computer programmed to perform the steps of sending the worklist search request message (being the selection of schedule icon 222) to the remote worklist broker via the networking port while the association is open (column 10, lines 19 through 65), controlling the display monitor to display at least portions of the worklist search results received from the remote worklist broker in response to the sending step (column 10, line 40 through column 11, line 46), wherein the received worklist search results comprises a list of patients scheduled to be examined during a particular time period using the scanner (see Fig. 3), registering portions of the worklist search results belonging to a particular patient in response to input of a patient selection command using the operator interface after the controlling the display monitor step (see Fig. 4, column 11, line 48 through column 12, line 14), controlling the scanning subsystem to acquire an image in response to input of a scan command using the operator interface after the registering step (see Fig. 5, column 12, line 50 through column 14, line 29), and storing the acquired image in association with the registered portions of the worklist search results in response to input of a save command using

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the operator interface (column 14, lines 15 through 44). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teachings of Banks in the system of McDonald. McDonald's system would become more user-friendly with the modification to include the teachings of Banks, as a technician or operator would be able to view the patients that are scheduled to be scanned, thereby allowing the technician to learn the images required and the necessary parameters, as recognized by Banks.

Regarding *claim 30*, McDonald and Banks disclose the scanner discussed above in claim 29, and McDonald further teaches that the computer is further programmed to control the display monitor to display the acquired image (column 9, lines 61 through 65).

Regarding *claim 31*, McDonald and Banks disclose the scanner discussed above in claim 29, and Banks further teaches that one of the screens further comprises fields that can be filled with worklist display format instructions inputted using the operator interface (see Figs. 8-10, being the selection of the utilities icon 226), the worklist display format instructions indicating what items in the worklist search results should be displayed on the display monitor in the step of controlling the display monitor (column 16, line 49 through column 18, line 19), and being distinct from the worklist search request message (indicated as the selection of the schedule icon 222, column 10, lines 19 through 45). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the further teachings of Banks in the system of McDonald. McDonald's system would become more user-friendly with the modification to include the teachings of Banks, as a technician or operator would be able to view the patients that are scheduled to be scanned, thereby allowing the technician to learn the images required and the necessary parameters, as recognized by Banks.

Regarding **claim 32**, McDonald and Banks disclose the scanner discussed above in claim 31, and McDonald further teaches that the one screen further comprises fields that can be filled with worklist display order instructions inputted using the operator interface, the worklist display order instructions indicating the order in which the items should be displayed on the display monitor in the step of controlling the display monitor (column 5, lines 1 through 55, column 9, line 61 through column 10, line 40, and column 11, line 10 through column 12, line 5).

Regarding **claim 33**, McDonald and Banks disclose the scanner discussed above in claim 29, and McDonald further teaches that the registering step comprises automatically entering the portions of the worklist search results belonging to the particular patient menu into a new patient data file (column 5, lines 30 through 55).

Regarding **claim 35**, McDonald and Banks disclose the scanner discussed above in claim 29, and McDonald further teaches that the scanning subsystem comprises a multiplicity of ultrasound transducer elements (see Fig. 1, column 3, line 66 through column 4, line 46).

Regarding **claim 36**, McDonald discloses a system (see Fig. 1) comprising a network (column 3, line 55 through column 4, line 1), scanner connected to the network (column 3, line 66 through column 4, line 46), and a worklist broker connected to the network (database server 24), wherein the worklist broker comprises means for retrieving stored patient information from a database in response to a worklist search request message received via the network (column 5, lines 1 through 27), and wherein the scanner comprises an operator interface, a display monitor (see Fig. 5, column 9, line 61 through column 10, line 47), a scanning subsystem for acquiring data representing an image of a target object, a hard disk, and a computer programmed (column 3, line 55 through column 4, line 56) to perform the steps of controlling the display monitor to

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display one or more screens having a plurality of fields that can be filled with respective worklist search parameters (being a patient search parameters) inputted using the operator interface (column 5, lines 1 through 20, wherein a patient search parameter is input in step 40, which is a hospital chart number or a patients surname, thereby being a plurality of fields), formulating a worklist search request message as a function of the contents of the plurality of fields in response to input of a search command using the operator interface (column 5, lines 1 through 55, being the search parameter message which is subsequently dispatched to the database server), opening an association with a remote worklist broker (database server 24) via the network (column 5, lines 10 through 27, see Fig. 1, being the communication between the capture station 22 and the review station 26), sending the worklist search request message to the remote worklist broker via the network while the association is open (column 5, lines 10 through 27, being the search parameter dispatched in a message to the database server), controlling the display monitor to display at least portions of the worklist search results received from the remote worklist broker in response to the sending step (column 5, lines 19 through 38, being the display of patients that match the search parameter), registering portions of the worklist search results belonging to a particular patient in response to input of a patient selection command via the operator interface after the controlling the display monitor step (column 5, lines 23 through 38, steps 46, 48, 56, and 58, being the selection of a record, which is then retrieved from the database server 24, and the creation of a new admission record), controlling the scanning subsystem to acquire an image in response to input of a scan command via the operator interface after the registering step (see Fig. 5, column 5, line 58 through column 7, line 45, being a created annotation file, seen in Table I having scan data, which is created after the registering step, which was interpreted as the

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creation of a new admission record), and storing the acquired image on the hard disk in association with the registered portions of the worklist search results in response to input of a save command via the operator interface (column 2, lines 52 through 65, column 4, lines 47 through 56, column 5, lines 38 through 55, and column 14, lines 24 through 45, particularly lines 27 through 32, wherein the scan data and the admission record data for each patient are stored together).

However, McDonald fails to specifically teach if the received worklist search results comprise a list of patients scheduled to be examined during a particular time period using the scanner. Banks discloses a system comprising a scanner (see Fig. 1, abstract, and column 7, line 45 through column 8, line 13), and a worklist broker (computer 107), wherein the worklist broker comprises means for retrieving stored patient information from a database in response to a worklist search request message received (column 10, lines 40 through 65), and wherein the scanner comprises an operator interface (column 6, line 65 through column 7, line 20), a display monitor (display screen 104, column 7, lines 4 through 20), a scanning subsystem for acquiring data representing an image of a target object (column 7, line 57 through column 8, line 13), a hard disk (memory 113), and a computer programmed to perform the steps of sending the worklist search request message (being the selection of schedule icon 222) to the remote worklist broker via a network while the association is open (column 10, lines 19 through 65), controlling the display monitor to display at least portions of the worklist search results received from the remote worklist broker in response to the sending step (column 10, line 40 through column 11, line 46), wherein the received worklist search results comprises a list of patients scheduled to be examined during a particular time period using the scanner (see Fig. 3), registering portions of

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the worklist search results belonging to a particular patient in response to input of a patient selection command using the operator interface after the controlling the display monitor step (see Fig. 4, column 11, line 48 through column 12, line 14), controlling the scanning subsystem to acquire an image in response to input of a scan command using the operator interface after the registering step (see Fig. 5, column 12, line 50 through column 14, line 29), and storing the acquired image in association with the registered portions of the worklist search results in response to input of a save command using the operator interface (column 14, lines 15 through 44). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teachings of Banks in the system of McDonald. McDonald's system would become more user-friendly with the modification to include the teachings of Banks, as a technician or operator would be able to view the patients that are scheduled to be scanned, thereby allowing the technician to learn the images required and the necessary parameters, as recognized by Banks.

Regarding **claim 37**, McDonald and Banks disclose the system discussed above in claim 36, and McDonald further teaches of a storage device connected to the network (see Fig. 1), wherein the computer is further programmed to perform the steps of opening an association with the storage device via the network, and sending a file comprising the acquired image and the associated portions of the worklist search results to the storage device via the network in response to input of a store command via the operator interface while the association is open (column 8, line 46 through column 9, line 35).

Regarding *claim 39*, McDonald and Banks disclose the system discussed above in claim 36, and McDonald further teaches that the scanning subsystem comprises a multiplicity of ultrasound transducer elements (see Fig. 1, column 3, line 66 through column 4, line 46).

6. **Claims 34 and 38** are rejected under 35 U.S.C. 103(a) as being unpatentable over McDonald (U.S. Patent Number 5,920,317, cited in the Office action dated 8/19/03) in view of Banks *et al.* (U.S. Patent Number 6,674,449), and further in view of Cooke, Jr. *et al.* (U.S. Patent Number 6,574,629, cited in the Office action dated 8/19/03).

Regarding *claims 34 and 38*, McDonald and Banks disclose the scanner and system discussed above in claims 29 and 37, respectively, but fail to particularly teach if the worklist search request message is formatted in accordance with DICOM protocol. Cooke discloses a system (see Fig. 1) comprising a network (column 6, lines 14 through 26), scanner connected to the network (column 15, lines 32 through 46), and a worklist broker connected to the network (PACS broker 46), wherein the worklist broker comprises means for retrieving stored patient information from a database in response to a worklist search request message received via the network (column 2, line 20 through column 3, line 64), and wherein the scanner comprises an operator interface, a display monitor (see Fig. 1, and column 8, lines 48 through 60), a scanning subsystem for acquiring data representing an image of a target object (column 1, line 27 through 38, and column 9, line 66 through column 10, line 11), a hard disk, and a computer programmed to perform the steps of controlling the display monitor to display one or more screens having a plurality of fields that can be filled with respective worklist search parameters inputted using the operator interface (column 7, lines 30 through 67, see Fig. 13), formulating a worklist search

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request message as a function of the contents of the plurality of fields in response to input of a search command using the operator interface (column 8, lines 1 through 25). Further, Cooke teaches that the worklist search request message, as well as the file for storage, are formatted in accordance with DICOM protocol (column 5, line 66 through column 6, line 64). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Cooke's teachings in the system of McDonald and Banks. The system of McDonald and Banks would easily be modified to include the teachings of Cooke, as the systems share cumulative features, being additive in nature, thereby conforming to well known industry standards for the exchange of medical images over a network, as recognized by Cooke.

Citation of Pertinent Prior Art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Wood *et al.* (U.S. Patent Number 5,851,186) discloses a medical ultrasonic diagnostic imaging system;

Hilton *et al.* (U.S. Patent Number 5,452,416) discloses a method for organizing, presenting, and manipulating medical images; and

Dorne (U.S. Patent Number 5,325,293) discloses a system for correlating billing codes and medical procedures for a particular patient.

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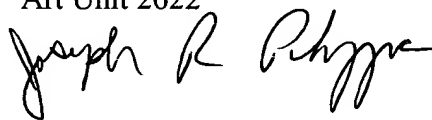
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe Pokrzywa whose telephone number is (703) 305-0146. The examiner can normally be reached on Monday-Friday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph R. Pokrzywa
Examiner
Art Unit 2622



jrp